PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.:	Unknown
Filing Date:	Unknown
Applicant:	Michael Mandell et al.
Group Art Unit:	Unknown
Examiner:	Unknown
Title:	A METHOD FOR SEAMLESSLY COMBINING ADJACENT FILTERS IN A FREQUENCY CHANNELIZER
Attorney Docket:	7784-000173

Non-Fee Amendment
Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Sir:

Prior to examination of the present application, please consider the following:

IN THE SPECIFICATION

Please replace the following paragraphs of the specification. Applicant includes herewith an Attachment for Specification Amendments showing a marked up version of each replacement paragraph.

Please replace Paragraph [0020] with the following paragraph:

[0020] In accordance with the present invention, a method for implementing a digital frequency channelizer 30 having linear phase is shown in Figure 4. First, a single digital filter (e.g., having 1 MHz bandwidth) is realized, as indicated at step 32, using previously described design techniques. For illustration purposes, the resulting filter is defined in a polynominal form having 96 taps. As will be apparent to one skilled in the art, the number of taps is a multiple of the filter bank size. This filter may be referred to as the prototype filter.

Please replace Paragraph [0021] with the following paragraph:

[0021] Next, the polyphase decomposition is computed for the prototype filter as indicated at step 34. Polyphase decomposition is a known technique which is used to define thirty-two separate filters each having 3 tap values. These thirty-two filters are commonly referred to as the polyphase components of the prototype filter and serve as the basis for the channelizer. One skilled in the art will readily recognize that two cascaded filters may be used to implement the one defined filter in each subchannel of the channelizer. In accordance with the present invention, a delay is then introduced, as indicated at step 36, into one of the filters in each subchannel. Lastly, the adjacent subchannels are recombined, as indicated at step 38, to form a digital frequency channelizer having linear phase.

REMARKS

Applicant notes that the basis for the above amendments may be found throughout the specification, drawings and claims as originally filed. Prompt and favorable consideration of this application are respectfully requested. Should the Examiner wish to discuss this application further, the Examiner is respectfully encouraged to call the undersigned at (248) 641-1600.

Respectfully submitted,

Date: March 26, 2001

By: _____

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Attorney Docket: 7784-000173

ATTACHMENT FOR SPECIFICATION AMENDMENTS

The following is a marked up version of each replacement paragraph and/or section of the specification in which underlines indicates insertions and brackets indicate deletions.

Please replace Paragraph [0020] with the following paragraph:

[0020] In accordance with the present invention, a method for implementing a digital frequency channelizer 30 having linear phase is shown in Figure 4. First, a single digital filter (e.g., having 1 MHz bandwidth) is realized, as indicated at step 32, using previously described design techniques. For illustration purposes, the resulting filter is defined in a polynominal form having 96 taps. As will be apparent to one skilled in the art, the number of taps is a multiple of the filter bank size. This filter may be referred to as the prototype filter.

Please replace Paragraph [0021] with the following paragraph:

[0021] Next, the polyphase decomposition is computed for the prototype filter as indicated at step 34. Polyphase decomposition is a known technique which is used to [defined 34] define thirty-two separate filters each having 3 tap values. These [32] thirty-two filters are commonly referred to as the polyphase components of the prototype filter and serve as the basis for the channelizer. One skilled in the art will readily recognize that two cascaded filters may be used to implement the one defined filter in each subchannel of the channelizer. In accordance with the present invention, a delay is then introduced, as indicated at step 36, into one of the filters in each subchannel. Lastly, the adjacent subchannels are recombined, as indicated at step 38, to form a digital frequency channelizer having linear phase.